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ABSTRACT

This study was undertaken to describe efforts in three states to create customized vocational training for specific client firms as part of economic development efforts. Approximately 70 persons from education, business, and state government were interviewed; documents from the three states (Ohio, South Carolina, and New York) were reviewed; and, at least one week was spent on-site in each of the states to gather data. Some of the major findings and recommendations resulting from the study are the following: (1) programs vary in terms of centralization and use of single or multiple agencies as providers; (2) rapid response to client firm needs through a streamlined decision-making process is needed; (3) eligibility for subsidies varies from state to state; (4) client firms in all three states were highly satisfied with the services they received, and provision of such services was cited as a factor in decisions to locate or expand in the states; (5) facilities and equipment must be up-to-date and flexible to accommodate a wide variety of training programs; (6) firms would have conducted their own training programs in the absence of those created for them, but such programs would have been of lower quality; and (7) a single state agency should be responsible for providing customized vocational education as part of the state's economic development efforts. Major issues raised but not answered by the study include the problem of private versus public responsibility for training, how states can document return on public investments, and how state economic development efforts affect the economic development of other states and the nation. (KC)

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CUSTOMIZED TRAINING FOR NEW AND EXPANDING INDUSTRY-- A VOCATIONAL EDUCATION ROLE IN STATE AND LOCAL ECONOMIC DEVELOPMENT

Lynn Brant

U.S. DEPARTMENT OF EDUCATION
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FOREWORD

The use of customized vocational-technical training as a component of state economic development efforts has been gaining popularity in recent years. This study was conducted in three states, and the findings reported here illustrate differences in organization, governance, and funding across these three models of vocational education/economic development programs. This report is based upon information and perceptions gathered in interviews with over seventy educators, business people, and state and local government officials. Information was also drawn from documents and reports provided by the states.

The National Center extends its appreciation to all those who volunteered their time for interviews. Special thanks go to Charles Dygert, Division of Vocational Education, Ohio Department of Education; Earl Ellis, South Carolina State Board of Technical and Cooperative Education; and Peter Cooke, Office of Occupational and Continuing Education, New York State Education Department, for their assistance and advice as liaison persons.

Invaluable comments on the draft of this report were provided by Michael E. Borus, Professor of Labor and Human Resources, The Ohio State University; Anthony Carnavale, Economist, Washington, D.C.; as well as Mark Newton and Art Lee of the National Center. Thanks are also due to Lynn Brant who designed the study and authored this report; to N. L. McCaslin, Associate Director, and Harold Starr; Program Director, of the National Center's Evaluation and Policy Division for their assistance throughout the project.

Robert E. Taylor
Executive Director
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in Vocational Education

EXECUTIVE SUMMARY

This study was undertaken to describe efforts in three states to utilize customized vocational training for specific client firms as part of economic development efforts. Approximately seventy individuals from education, business, and state government were interviewed, and documents from the three states were reviewed. At least one week was spent on-site in each of the three states.

Some of the major findings and recommendations resulting from the study are as follows:

- Programs vary in terms of centralization and use of single versus multiple agencies as providers.
- It is recommended that a state provide for a single agency to have authority for providing customized vocational education services as part of the state's economic development efforts.
- Rapid response to client firms' needs is of utmost importance, and streamlined decision-making processes are needed to avoid delays in responding to these needs.
- Eligibility for subsidies varies from state to state with common criteria being new job creation, job retention, and productivity enhancement.
- Assistance with screening and selection of potential trainees has the potential for being an important and beneficial service to client firms.
- Linkages and collaborative relationships with other agencies such as chambers of commerce, Private Industry Councils, and State Departments of Economic Development are important and should be cultivated.
- Facilities and equipment must be up-to-date and flexible to accomodate a wide variety of training programs.
- Client firms in all three states were highly satisfied with the services they received.

- Most client firms would have conducted training in the absence of state services, but reported that their in-house programs would have been less comprehensive and of lower quality.

- Customized training was reported by client firms to have been one of a number of factors influencing location and expansion decisions.

The following are brief descriptions of macro policy issues that were identified during the course of the project. This report makes no attempt to resolve these issues. They are presented only for the readers consideration.

- Public versus private responsibility for training--how far can and should states go in assuming responsibility and costs for firm-specific private training?

- Client firm eligibility and subsidies--how can states document the return on a public investment such as subsidized vocational education/economic development projects?

- National versus local interests--from a national perspective, much "job creation" is actually job migration and may constitute a zero-sum effect.

- Capacity and infrastructure building--possible benefits of vocational education/economic development programs that are, as yet, unrealized.

The following are several suggestions for further research concerning vocational education/economic development programs.

- A longitudinal study into the impacts of vocational education/economic development projects upon trainees involved.

- Continued study of client firm satisfaction across many states should be conducted.

- An expanded study to describe structure and governance in all states having vocational education/economic development programs is needed.

CHAPTER I

INTRODUCTION

How to provide useful and productive work opportunities for those wishing to work is a persistent national problem. Vocational education is an important facet of the nation's employment and training system, and historically has been a significant contribution to the development of the nation's stock of human capital. In more recent years, vocational educators have paid particular attention to policies and programs designed to facilitate the school-to-work transition, enhance productivity, and contribute to job creation.

Currently, much attention is being given to improving linkages and communication mechanisms among training institutions and business and industry. In an age of structural unemployment (when many are without jobs yet job vacancies go unfilled because of specific skill shortages), all educational sectors must be attentive to matching the skills taught to the occupational demand structure in business and industry.

Vocational education is also becoming involved as a partner in the national effort to stimulate economic growth, reindustrialize, and create new jobs. One approach currently being used by many states is the provision of customized training services to certain firms as part of state and local economic development efforts. Such endeavors have the potential for establishing new and ongoing linkage arrangements while giving the private sector access to public training resources. They also have the potential for a favorable impact on the employment picture in a given community. Such programs and projects were the focus of this study.

Since vocational education/economic development programs are relatively new, the literature concerning them is scanty. Many states are in the process of implementing and developing programs, and are in need of information about efforts elsewhere and about the relative merits of possible organization, governance, and project management models. This report provides detailed descriptions of programs in three states, as well as descriptions of specific training projects.

Background

A wide array of activities at both the federal and state levels that fall under the rubric of "economic development" have been underway for many years. The federal role in economic development has been going on with initiatives through the departments of commerce, agriculture, housing and urban development,

and transportation. Programs such as the Rural Development Act, the Urban Mass Transportation Act, the Appalachian Regional Commission, and the Small Business Administration were designed to improve the infrastructure (roads, water, and so on) in a particular region, or to provide targeted assistance to certain types of enterprise such as small farms or small businesses. All such efforts were expected ultimately to create jobs in depressed regions, to lend a more equitable distribution of income, and to contribute to the erasure of poverty.

However, vocational education programs have been more extensively incorporated into state and local development. State-level economic development efforts have come a long way in recent years. Prior to the sixties, if states tried to attract business and industry at all it was by outbidding each other with various tax breaks. Today, many states attempt to promote themselves on the open market by advertising the wide range of inducements and services they can offer to business and industry. Some of those inducements include--

- Industrial development bonds: States and municipalities issue bonds to investors that are free of federal, and usually state and local, taxes. The revenue from these bonds may be used by the recipient industry for plant and equipment costs. In 1958, only $20 million in industrial bonds were issued, mostly by southern states. The practice spread rapidly and by 1968, the total was $1.8 billion.[1]

- Tax breaks: The most common inducements in interstate competition include abatement of local property taxes (either total or for a certain number of years), excise tax exemptions, special depreciation allowances on capital equipment, personal income tax exemptions (for company executives), and elimintion of industrial sales from tax liability.

- Loans and loan guarantees: Direct loans provide monies for building construction while loan guarantees lower the interest charge to the firm by lowering the "risk premium" that banks charge. The federal bail out of the Chrysler Corporation is a recognizable example of these practices. However, they are more prevelant at the state level.

- Grants-in-Aid: A more direct subsidy in which states or locales may build a plant to specification or provide private access roads to a plant site.

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[1]Bluestone, Garry and Harrison, Bennett. Capital and Communities. (Washington, D.C., The Progressive Alliance, 1980), p.229.

Economic developers seem to assume that firms often make location and expansion decisions based upon labor-related factors. Such factors may include the availability of already skilled labor, an area's prevalent wage rates, extent of unionization, and the quality and accessibility of an area's public training resources. The provision of customized, often subsidized, training for new employees or upgrading for existing employees became recognized as a valuable tool in facilitating a community's economic growth. The incorporation of training services as an economic development instrument began in the south, and in recent years, spread nationally.

After World War II, the southeastern states (most notably South Carolina) found themselves with an inadequate industrial base, few sources of tax revenues, and a relatively impoverished population. In South Carolina especially, the economy was comprised largely of agriculture and textiles. People, especially the better educated young, were leaving the state at an alarming rate. Therefore, economic development became a priority, and a number of manufacturing firms were attracted--perhaps by lower labor costs.

However, the distribution of education and job skills in the south was less than in the north, and that fact began to act as something of a drag on economic development efforts. In the north, workers with adequate education and experience for most manufacturing jobs were still available "on the street." In 1961, the governor of South Carolina appointed a commission to study the problem. That commission recommended that at least one component of the state's education system be mandated to assume economic development as its primary mission. Following this plan, the commission reasoned, would assure prospective business and industry that recruiting and training a labor force would not be a problem.

South Carolina thus became a pioneer in linking occupational training to economic development as a matter of state policy. The practice appeared to provide an important new component to economic development strategy, and quickly spread through the south and in the past decade, across the nation.

Procedures

This study originally focused on the program of training for new and expanding business and industry in Ohio, and was later expanded to include two other states. Care was taken to select two states that would provide variance from Ohio in terms of the model employed for the program, length of time the program had been in existence, and geographical/economic factors. It was decided that one state would be chosen from the southeast "Sunbelt" region, and one from the industrial states of the

northeast. A Sunbelt state was desired because in this region, programs have generally been in effect longer than in the north. That area also attracts much national attention because of its apparent success in attracting new business and industry.

South Carolina was chosen from the sunbelt region not only because its program is among the oldest of its kind in the country, but also because it differs in some key ways from the Ohio program. New York was selected from the northeast because the vocational education/economic development program is newer than those in Ohio or South Carolina. This fact offered the opportunity to examine a program that is still emerging, and has not yet established an identity.

Initial contacts in South Carolina and New York were made with the ranking officials of the appropriate state departments. In turn, these persons were asked to suggest a liaison person. The liaison person provided assistance in identifying appropriate individuals to be interviewed, selecting projects to be reviewed on site, gathering requested documentary information, and establishing an itinerary for the site visit.

During the Ohio phase of the study, more individuals were interviewed and more projects reviewed than in either South Carolina or New York. Efforts in these two states were limited to one week on-site visits in each state. A set of generic themes and issues identified in Ohio were formulated into an interview protocol for use in the other two states. The protocol contains categories of information that were solicited from interviewees depending on their role and ability to comment on the various items.

Interviews were conducted with approximately seventy individuals in the three states. These include program directors, regional field representatives, state economic development officials, local economic developers, CETA staff, representatives from the governor's office, secondary vocational educators, technical and community college staff, plant managers and other representatives of client firms, and miscellaneous others.

A total of sixteen individual projects were examined in the three states. Each of these involved discussions with program operators to obtain background information on the development and history of the project. Then, for each project, staff from training institutions that participated were interviewed as to their involvement in the project and their perceptions. Plant managers and/or other representatives of client firms served by each project were interviewed, and a tour was made of the plant site. Representatives of the client firms were asked for their perceptions of how the projects evolved and were conducted, satisfaction with the training and services received, perceived impact of service availability on their company's decisions to locate or expand in that area, and recommendations as to how the projects could have been improved. For projects where multiple

funding sources were involved, representatives of the secondary funding agencies were interviewed as well. The input of information and perceptions from these three or four points of view provided an opportunity to triangulate the findings and to either validate them or discover discrepancies. At points where conflicting information and opinions were given, the range of variance is discussed in the case study narrative. Possible explanations for the discrepancies are also offered.

For further validation, drafts of the case study reports were reviewed by several individuals in each state for possible errors in fact or interpretation, and for areas in which the reviewer felt information was omitted, but should have been included. Input from these reviewers was incorporated into the final draft.

Study Purpose and Organization of Report

The objectives of this study are--

1. to describe efforts in three states to utilize vocational education resources in economic development;
2. to assess the perspectives of employers (client firms) as to the quality and value of the training services they received; and
3. to offer recommendations for future related research.

The report is organized in the following manner. Chapters II, III, and IV are the case study reports of programs in the respective states of Ohio, South Carolina, and New York. Each chapter includes a history of the development of that state's program of training for new and expanding industry. Each program is discussed according to its organization, governance, funding, and operation procedures and policies. Major differences between the programs are highlighted. Additionally, several projects of training provision to client firms are detailed. The reader is "walked through" each of those projects, and attention is given to project development, the formation of cooperative arrangements, factors and conditions that appeared to facilitate the project, problems that emerged, and the perceptions of the client firms.

Chapter V contains a review of the major findings from the three case studies. It also discusses some of the variables and conditions that appear to affect the capacity of programs to link with economic development efforts effectively. A number of generic issues that seem to be common to all three states (and are therefore assumed to be significant nationally), are examined, and policy recommendations are offered where deemed

appropriate. Finally, suggestions for future related research are offered and discussed.

It should be noted that throughout this report the phrase "vocational eduction/economic development" is intended generically, and is meant to encompass all types of occupational training systems that are involved in training for economic development purposes.

CHAPTER II

THE OHIO VOCATIONAL-TECHNICAL EDUCATION CONSORTIA

History

Ohio's secondary and postsecondary vocational education institutions have made efforts for many years to communicate with, and meet the demands of, business and industry. Until recently, however, there has been no program, mechanism, or specific funding for using Ohio's vocational education resources as an instrument in economic development efforts.

When asked how vocational education/economic development linkage was handled prior to the emergence of the current program, a division of vocational education administrator commented--

> Both the secondary adult educators and the postsecondary schools were supposed to do outreach (to business and industry) but they didn't have access to the chief executive officers, they just didn't have enough of the right contacts to convince businesspeople that we could be partners with them.

Added to that constraint was the problem that institutions usually did not have full-time staff persons to function as liaisons with business and industry. In most cases, such duties were merely added on to an existing role even though the outreach process is very time-consuming one.

Prior to the current program, the only monies for subsidized economic development training came through Ohio's Department of of Development. That agency would often provide a new or expanding firm with a grant to offset training costs. However, there was no mechanism for linking the firm with existing training providers in the state. A company receiving such a grant might purchase training services from any public or private school, or use the funds to cover costs of in-house on-the-job training.

A major impetus for change came when a large firm in one of Ohio's metropolitan areas planned a large expansion requiring considerable training of new employees and upgrading of existing employees. The local chamber of commerce had been instrumental in helping the company with many problems associated with the planned expansion and when the training issue emerged, the chamber of commerce again became involved. There were a number of

vocational education institutions in the area but since the training project was so large and so diverse no one school could handle the entire project. Cooperation and coordination became a problem. Chamber of commerce staff contacted state vocational education officials, and an idea was proposed to link the involved institutions informally so they might mutually determine what their optimum roles in the project were and how they could best serve the company and the community. The arrangement worked better than expected, and few "turf" problems were experienced (possibly because of to the large size of the project that allowed all institutions a role). Even though the arrangement was intended to be temporary, the schools formalized their association with help from the state, dubbed it the vocational-technical education consortium, and included other members such as the chamber of commerce, CETA, representatives of business and industry, and others.

The Ohio Division of Vocational Education aided in implementing consortia in other parts of the state, but there were still important ingredients missing. First, the consortia were essentially committees comprised of persons taking time from their other responsibilities. Even though the institutions were collaborating, there was no single person devoting full-time to coordination of the effort and there were no funds to hire such individuals.

The current program emerged in the winter of 1981, when a was given from the governor's one-percent CETA set-aside monies for linkage. Twenty-three consortia were established (corresponding to Ohio's vocational education planning districts), and funds were used to hire a full-time director for each. Both the State Division of Vocational Education, Ohio Department of Education, and the Department of Development made funds available for economic development training projects proposed by the consortia. The consortia directors would coordinate the member institutions, serve as liaison to potential client firms, submit proposals, and handle other arrangements with the two state agencies.

Program Governance

A consortium, with a full-time director, is now operating in each of the twenty-three vocational education planning districts. The consortia are quasi-public entities. Even though the bulk of their membership is from public agencies and their operating funds come from public revenues, they are not considered state agencies. Each consortium elects a governing board from its membership which in turn, selects a chairperson. The board also hires the consortium director; a person who is not considered a state Civil Service employee.

Since some fiscal arrangements are needed for the salaries and benefits of the consortium directors, one institution in each consortium is designated to be the fiscal agent. That institution is technically the employer of the director (with costs reimbursed from the CETA grant), although in practice the directors work equally for all member institutions, and do not show preference to any one institution. Office space for the director is provided by one of the member institutions or by the local chamber of commerce. That decision is made individually by each consortium, and is usually a matter of geographic centrality or availability of space. In some instances, office space and support services are donated. In other cases, there is reimbursement from the state.

Although the membership of the consortia varies, a typical consortium consists of--

- o public school systems
- o local joint vocational school district(s)
- o local postsecondary technical college(s)
- o CETA prime sponsors
- o state universities and/or their branches
- o county chambers of commerce.

Other aspects of goverance are related to funding mechanisms and are discussed under Program Funding.

Program Funding

As previously mentioned, the first-year salaries of the consortium directors, as well as some other administrative costs, were funded by a grant from the Governor's one-percent CETA set-aside funds for linkage. This grant has been renewed for the current year. During the first year of operation funding for specific projects came from monies contributed by both the Division of Vocational Education and the Department of Development. Until the fall of 1981, there was no specific item in the state budget to fund training programs as part of the state's economic development effort.

In November 1981, a state budget was passed for the 1981-1983 biennium. It included a line item of $7 million for training services for new and expanding business and industry; $2 million was allocated for 1982, and $5 million was allocated for 1983. These monies were originally to have been allocated to the Ohio Department of Education, Division of Vocational Education. However, there was concern among administrators of postsecondary technical colleges that such an allocation might serve to exclude their institutions as service providers. The legislation was therefore changed so that the funds were allocated to the Ohio

Department of Development as a "third" party participant. Another move is underway to further change the legislation so that the funds allocated to the Department of Development can be used to cover administrative costs (e.g. director's salaries) of the consortia, and also to provide for training assistance to "depressed" industries, as well as those new to the state or expanding.

Recently, however, Ohio's tax revenues proved to be significantly lower than projected. The new budget (which must be balanced under law), showed massive deficits. Nearly all line items were scheduled for a 15 percent cut, with many lines being eliminated entirely. The training allocation for new and expanding industry was initially among those to be eliminated. It is perhaps testimony to the strength of the consortia program that the decision to eliminate the funding was reversed.

Key legislators were lobbied and not only vocational educators, but also representatives of chambers of commerce and the private sector, attended legislative committee meetings and voiced their objections. The legislature accepted the notion that the program represented an investment in Ohio's economic development and that the program was particulary important because of the state's sagging economy. The line item was not eliminated. It was even spared the 15 percent reduction.

Presently, project funding is arranged on an individual basis. When a project is proposed by a consortium director, it is reviewed by a state vocational education administrator. Certain requested expenses might be immediately refused as a matter of policy. Examples would include the use of an out-of-state service vendor when the capacity for providing that service exists in Ohio, instances when the services from a vendor are considered higher-priced than the customary costs for those services, and when funding for instruction is to be combined with production. Decisions are then made as to which services will be paid for from vocational education monies, and which will be charged to the Department of Development allocation. Vocational education monies are used mainly for reimbursments of instructional costs to the provider institution. Items such as training materials and audiovisual services are paid for by the Department of Development. Many costs are equally divided between vocational education and Department of Development, but in general the Department of Development funds are more flexible and are used where vocational education funds cannot be spent. All durable goods purchased for the conduct of a project remain the property of the state and are removed at the end of the project for use elsewhere.

Contributions to a project by the client firm are not specified on a percentage basis. However, there usually are some costs borne by the company. These may be indirect (such as

down-time on equipment being used for training), or direct expenditures for aspects of a project that the state declined to fund.

Linkages and Collaborative Relationships

At the state level the only formalized relationship regarding the consortia is between the state Division of Vocational Education and the Department of Development. However, meetings have been held between vocational education officials and such agencies as the Ohio Chamber of Commerce, CETA, universities, and others. Linkage is primarily handled at the local level through the consortium in each area. Since the consortia are local nonprofit organizations, they have no oversight organization at the state level except for their direct funding sources: The Division of Vocational Education and the Department of Development. Several local consortium members suggested that such a state-level entity that would represent and coordinate the consortia was needed. This idea has not developed into a widely held view, but every consortium director interviewed expressed some concerns about the need for uniformity among consortia. With this uniformity, however, they also feel the need to retain a degree of local autonomy. As one consortium director commented, "I don't think most of us want someone looking over our shoulder--but sometimes we feel alone and out on a limb." Others admitted occassional confusion over "role clarity," and "who's the boss?"

These expressions of concern were never put forth as criticisms of either the local consortium boards or the support persons that the consortium directors have at the state level. The consortium directors seem to recognize that at the local level, their board members are essentially volunteers and have many other responsibilities, and at the state level there simply is not enough staff to give them the degree of personalized attention they would like to have. Currently, one vocational education administrator devotes full-time to the effort and more recently, two Department of Development employees have been assigned. Still, most of these individuals' time is taken up by the review of project proposals, contract development, and other administrative matters. They are often requested to attend local consortium meetings and to provide advice and direction--but they are spread thinly over twenty-three consortia. Program officials in Ohio are aware that linkage between the state level and the local consortia is a problem, and they are attempting to deal with it. Staff expansion or organizational changes may be necessary to provide the support that the field staff perceive as lacking.

Linkage at the local level was the reason the consortia emerged. To the extent that each consortium brings the involved

agencies and actors in the area into membership, a forum for communication is provided. Each consortium has a constitution that provids for membership, election of executive boards, meetings, and other practices. Membership invitation is usually extended to all education and training agencies and institutions in the area, as well as chambers of commerce. In the five consortia studied, the current membership was considered sufficient by those interviewed. Membership, however, should probably not be considered a closed issue. As the consortia grow and change and as new and unique projects emerge, collaboration with still other entities may prove important. Right now the best mechanism the consortia have for achieving new linkages is simply to recruit the individuals or agencies in question as members.

The major coordination issue facing each consortium is which institutions will be service providors for specific projects. In some cases, a project may require that only one training institution be involved but there may be several with the required capacity. In other cases, a project may be large and varied enough that several schools will provide assistance. In these instances, decisions need to be made about how to divide responsibility. In the more rural consortia, the matter is often dictated by geography and convenience.

When there is a conflict it is the consortium director's responsibility to resolve it. One director circulates a brief on each proposed project to all member institutions so that each has the opportunity to express a desire to be involved. Usually geography, client firm preference, and capacity to conduct the required training combine to make the choice obvious. In the five consortia studied, no major conflicts of this nature have come about. Diplomacy and creativity on the part of the consortium directors can probably continue to resolve such problems to the extent those persons perceive that role as part of their function and have the necessary talents.

Consortium Directors: Roles and Utilization

Each of the twenty-three consortia have somewhat different views about how their director will function and how much direction they will provide him/her. The following is an example of one director's duties:

1. To identify and assess the training needs of area businesses and industrial, governmental, and human service agencies, and relate this informtion to members of the consortium.

2. To assist the members of the consortium in designing proposals whereby the training needs of such agencies can be met.

3. To maintain aggressive and positive communication about training programs with area agencies through visitation and telephone contacts.

4. To communicate regularly with members of the consortium about training needs, actual and potential programs proposed, the possibility of other programs, and the progress being made through presentations to businesses and industrial, governmental, and human service agencies in the consortium area, and to include in this communication an evaluation of these activities.

5. To maintain an informed contact with state department officials concerning all matters pertinent to the consortium.

6. To prepare and submit punctually all reports necessary for the operation and evaluation of the consortium.

7. To serve as secretary to the consortium board of directors and to render the following duties:

   a. Prepare and send agendas to the consortium board of directors in cooperation with its officers.
   b. Record, publish, and send all minutes of their regular and special meetings to the consortium board of directors at least five days in advance of any subsequent board meeting.
   c. Notify all members of the consortium of all meetings at least ten days in advance.
   d. Maintain a record of all correspondence, reports, board minutes, and activities of the consortium.
   e. Represent the consortium positively and accurately to the media.

8. To be responsible for the preparation, printing, and distribution of literature developed by the consortium.

9. Supervise any subordinate staff who may be added to assist the executive director, taking the responsibility to make employment recommendations and to evaluate such staff.

10. Perform other duties as requested by the consortium board of directors.

Each consortium director brings a different set of experiences and qualifications to the position, and their characteristics vary considerably. Some have backgrounds primarily in education and human services while others have had extensive experience in business and industry. Perhaps the ideal consortium director would have a background in training, program development, industrial processes, management science, and organizational psychology. However, such persons are difficult to find at affordable salary levels. All the directors interviewed had obvious strengths, but it is logical that each had areas of weakness as well. The educator as consortium director might be very adept at assessing training needs, developing a program, and communicating with members of the education community. However, that same person might be less able to understand a personnel problem from a businessperson's point of view (i.e., in terms of efficiency and productivity). On the other hand, a consortium director with an industrial background might be better able to "speak the same language" as his/her clients, but might be less able to ensure that a quality training program was actually being delivered.

All five consortium directors interviewed felt that there were facets of the job in which they had insufficient competencies. In some situations consortium members were able to complement the director's skills. In one area the director's background is primarily in education and manpower programs--but this individual is housed in a Chamber of Commerce where advice and insight on the industrial perspective is readily available. Still, this is a job that most find they have to "grow into." Some mode of inservice training for consortium directors might prove beneficial in improving competencies.

Outreach

When the newly hired consortium directors were first brought together for an orientation, a state vocational education official commented that directors should not "go knocking on doors" to identify potential client firms. It was felt that a better approach would be to use good public relations practices, make the consortia known and accessible, and then allow firms with training needs to approach the consortium director. Perhaps in the future when the program is better known those methods will be suitable. For the present, however, active outreach activities seem necessary. All five consortium directors interviewed are making personal and telephone contacts with businesses and industries to make their presence and their services known. Public and private media as well as chambers of commerce are also used to make the consortium's purpose better known.

Third parties sometimes bring consortia and potential client firms together. Referrals come from the Department of Development, local chambers of commerce, occasionally the governor's

office, and other sources. But at least in the five areas studied it seems that some projects are initiated as a result of the consortium director soliciting potential client firms, or firms contacting one of the member schools without prior knowledge of the consortium or its services. Again, this is partly a result of the program being relatively new, but it is significant because the type of projects being conducted may be partly a function of how outreach is conducted. Direct outreach in a given community will not link the program to a firm that is considering location of a new facility in the state. Initial contacts for projects of that type should come through economic development agencies, probably at the state level, with the training component being referred to the local consortium.

It is difficult to keep abreast of expansions of companies already in an area. Several consortium directors spoke of expansions where training could have been a component, but they were not identified early enough. Other economic development actors in a community usually know of such expansions, but unfortunately do not always consider the manpower and training implications of such an expansion. Utility companies and railroads are examples of organizations that use economic developers and that may represent fertile ground for consortia outreach. Direct solicitation does tend to identify firms that would like to start some training of existing employees, especially if a public subsidy is offered. However, these projects would not create new jobs, and they are justifiably part of the economic development effort only to the extent that they can help retain jobs. There will always be plenty of private training available to be done at public cost: enough to deplete the funding sources quickly unless rational eligibility criteria are devised.

Eligibility of Client Firms

The Ohio program emerged in response to programs of training for new and expanding industry in other states. Thus it is not surprising that initially, the question of which firms would be eligible for subsidized training was answered with the criterion of new job creation. There would be two categories of eligibility: (1) new business and industry; and (2) expansions that would create new jobs. Almost from the beginning, however, it became apparent that Ohio's problem was as much keeping existing jobs as creating new ones. Ohio was (and is) suffering from a depressed auto-related economy and many key employers were (and are) contracting their work outside the state or leaving the state completely.

Job retention can be considered as much a part of economic development as job creation. The prevalent attitude in the state

was that if job training paid for by the state could help save jobs, then it was a valid investment. The approximate value of a manufacturing job to a community can easily be demonstrated in cost/benefit terms, and it seems readily apparent that public monies spent to save such a job would produce a positive return. However, the real issue is causality--a factor that is difficult or impossible to measure.

If examined from a development point of view, client firm eligibility is a part of the process of determining where development efforts will be most fruitful. Assuming that the funds any state allocates to vocational education/economic development programs will eventually be more than matched by demand for subsidies, it seems prudent to begin thinking now of ways to measure the relative returns on these public investments and fair criteria for establishing priorities.

Selection of Trainees

The Ohio Program provides for preemployment training when it does not conflict with the client firm. In such cases, assistance with trainee selection may be provided if requested by the client firm. Assistance may come from either the Ohio Bureau of Employment Services, or from a training institution that has testing and evaluation facilities.

State Perspectives on Program Impacts

Individual consortia solicit feedback from client firms regarding their satisfaction with training services. This is sometimes done with a questionnaire, but more frequently takes the form of a letter from a plant manager expressing gratitude for the services. None of the five consortia studied have a method for attempting to determine the impact of the training upon the client firm's net employment.

Client Firm Satisfaction with Service

A total of ten training projects were examined in Ohio. Each entailed a tour of the plant or company worksite, with particular attention paid to the areas of operation where the job training took place. Interviews were conducted with plant managers, personnel directors, and others who were closely involved with the project.

Without exception, all persons interviewed across the ten projects reported satisfaction with the training and its outcomes. Such unanimous praise is perhaps partly due to the fact that these firms were benefiting from training received at a cost much lower than that of in-house or privately contracted

training. There was an attitude among these firms that the state had provided them a free service to which they were not accustomed. Their strong positive response was directed toward the availability of the service and the benefits which resulted. One personnel director said,

> When we first heard about this we thought it was too good to be true. Then it turned out to be true and we were just tickled pink. We saved several hundred thousand dollars. We think it's great.

After being assured that constructive criticisms and insights into how the program affected client firms were being sought, most interviewees were willing to discuss the projects in terms other than constant praise. The question of impact on firms' decisions to relocate was not applicable in Ohio since none of the ten firms were new to the state. However, six of the ten were expanding firms, and the interviewees from those firms generally responded that the training services had "helped" them in their expansion. Five of those six indicated that they would have gone ahead with their expansions in the absence of the program, and would have done the necessary training in-house on an as-needed basis.

The manager of one of the smaller firms reported that he would not have been able to do the training in-house, and without the services of the consortium his expansion and resulting job creation would have been much slower. The five firms that would have expanded and conducted training privately did, however, concede that the training done through the consortia projects was of better quality, more intense, and reached more workers than if they had done it in-house. This suggests that training services given to expanding (or potentially expanding) firms seldom determines whether the expansion takes place--but it is a significant factor in how rapidly the expansion takes place, and more importantly, it determines how many workers are trained and the quantity and quality of the training they receive. A company owner said,

> Of course we would have done training regardless--but we probably couldn't have afforded to do all we did (under the project). We would have trained fewer men and only in areas that they absolutely needed...we're definitely getting more production out of our new machines than we would have (without the training project).

This comment illustrates that enhanced productivity is as much a possible outcome of vocational education economic development projects as is job creation. It further illustrates that

firms are often aware that training may stimulate their productivity.

The remaining four projects were with firms where there was no expansion and no new job creation. The projects were conducted in the hopes of retaining jobs in plants which were hard hit by recession and in which employment had been declining. Representatives of all four expressed concerns that their plants may be closed completely. Managers in each of these firms offered the opinion that the training services they had received helped to increase their productivity, enhance their viability, and thereby protect jobs. As previously discussed, such impact from vocational education economic development projects is difficult or impossible to measure. All four of these firms allegedly would have done some training in the absence of the project, but just as with the expanding firms, it was felt that their in-house program would have been of lower quality and less comprehensive.

Many of the client firms included in the study did offer suggestions regarding how the projects might have been better coordinated, and spoke of problems that occurred during the training. Most common was the comment that they wished they had known about the consortia sooner. This shows that outreach and communication with potential client firms is an important function for vocational education economic development programs, particularly those that are not yet well established and well-known. Other criticisms usually regarded delays in decision making at the state level, and problems with equipment and facilities in the schools. Five of the ten client firms experienced delays in decision making by the project funding sources. These were tolerated by the firms, but were felt to have unnecessarily delayed the training and were offered to the researcher as a way to improve the program's operation. Streamlined decision-making processes have been identified in the literature as important policy considerations for vocational education economic development programs.[1] Private sector managers often assume that delays in action from public agencies indicates hopelessly tangled red tape and an inability of the state to follow-through on its promises. Frequent delays can threaten the spirit of partnership that is necessary in a vocational education economic development project.

Equipment and facilities became problems in several projects. If a project is to be located in a training institution rather than at the plant site, the school must have the necessary equipment. In one project, the school had welding equipment but

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[1]Bushnell, David S. The Role of Vocational Education in Economic Development (Washington, D.C., United States Department of Education, Office of Vocational and Adult Education, 1980), pp.68

did not have enough to train the number of workers the client firm needed simultaneously. The firm loaned equipment to the school for the project, but it could not be used because the school building had 2 phase instead of 3 phase electricity. In another part of the state a company donated two machines worth approximately $40,000 to a vocational school. Again, these machines could not be used because during construction of the school, a decision was made to save $7,000 by installing 2 phase rather than 3 phase electricity. Of course, schools cannot have all equipment and facilities that might be needed for the broad range of potential industrial training projects. But if vocational institutions are to be more responsive to the customized training needs of the private sector, they must pay attention to basics such as electrical systems, overhead doors and cranes, loading docks, and so on in their shop areas.

Based on the inputs of the client firms served, it appears that consortia training services in Ohio are reaching expanding firms and are facilitating new job creation and contributing to productivity gains. As for job retention in "depressed" industries, it would probably require a longitudinal study to determine whether those jobs are, in fact, retained. No projects were canceled due to delays or equipment problems, but it appears that both streamlined decision-making and the physical capacity of schools to accommodate industrial training programs are perceived by some client firms as potential barriers that the Ohio consortia program should give attention to.

Review of Selected Projects

Three of the ten projects studied are described here in greater detail. These projects were chosen because between them they illustrate the range of services that can be provided, the various types of arrangements that often must be made, and some of the problems and barriers that sometimes arise. The reader is "walked through" each of these projects from their inception to completion and follow-up.

Project A

This client firm is a medium-sized manufacturing plant in one of Ohio's smaller cities. The plant employed several hundred persons until recently when the parent corporation announced that partial operations of another facility would be transferred to the Ohio plant--thus creating a need for twenty to forty-five additional production welders. It was important that these positions be filled quickly so that production would not lapse and outstanding purchase orders could be filled on time. As the need was for semiskilled welders, and the firm first considered advertising for on-the job trainees and conducting the training

in-house with its own welders as instructors. However, the lost production time of both the instructors and equipment was determined to be prohibitive.

The plant's personnel director contacted the local joint vocational school to inquire about recent welding graduates or the possibility of a special training program that the firm would fund. At that point, the area's consortium director was notified and became involved. Again, this situation occurred early in the life of the consortium, and indicates that the promotion of awareness of consortia and their services among possible client firms warrants emphasis. Many firms, especially smaller ones, do not consider a customized vocational education program a possibility when confronted with a training problem. Even fewer are aware that a subsidy may be available.

The consortium director worked with the staff of both the client firm and the joint vocational school to devise a curriculum and make logistical arrangements for the training. Five teachers from the joint vocational school toured the plant, took pictures, examined the types of welds needed, the welding equipment used in the plant, and the materials being welded. The welding equipment at the joint vocational school was adequate in type but not quantity. The equipment from the plant could not be loaned because of differences in electrical systems. During the project, this was the only problem that emerged during the project that was not fully resolved. As a result, more time was needed to complete the project than anticipated.

The firm also sent two engineers to the school's welding shop to examine equipment and make recommendations about how to structure the training. This brief exchange of staff was felt by both parties to have greatly facilitated the project and to have led to a better planned, more customized training program. It also gave the vocational education teachers a bit of industrial exposure and the company's engineers a better appreciation of the training capacity of the vocational schools.

A forty-hour program was developed and was to be presented evenings at the joint vocational school. The firm advertised locally for welding trainees and received an overwhelming response. Only a few of the applicants had welding experience, so screening of the remainder became a problem. The joint vocational school was able to offer an additional service by giving an aptitude test to the applicants that the company was able to use as a screening aid. The trainees selected were placed on the company's payroll as general labor before the training began, and were moved into welding jobs as they completed the course.

No Department of Development monies were used in this project although it seems the firm may have been eligible. State vocational education funds were used to cover one-third of the

instructional costs. The client firm paid the balance to the joint vocational school. The plant's personnel manager called the costs "a bargain" and said that even without the partial subsidy the project would have been a "good deal." The company incurred an additional cost in training materials since the welds were being done on stainless steel--a material that the joint vocational school did not have available.

Forty welders, many of them previously unemployed, were eventually hired and trained. They started at a wage of $6.94 per hour and were to be increased to $7.87 per hour after one year. Had public training resources been inaccessible, the company would have either suffered the cost and productivity losses of in-house training, recruited experienced welders from a wider market, or transferred welders from other corporate sites into Ohio.

Project B

This client firm was a large manufacturing company in a fairly rural area of the state. It employed several thousand and had recently completed a major expansion involving new construction, job creation, and a $125 million investment for new high-technology processes. During this expansion (which was prior to the local consortium's existence) an in-house training program had been developed and conducted by the firm. However, an older section of the plant that produced input materials for the new section was experiencing sagging productivity--making it unable to meet the input demands of the new section and threatening both the projected returns from the $125 million investment and the jobs that the expansion had created.

Increasing productivity in the older section became a priority concern, and the firm felt that training for the workers in that section would have to be conducted. The company considered an in-house program, and also received a bid from a private training and consulting firm. That bid was approximately $400,000.

It was by accident that the consortium became involved. An employee of the plant was a friend of the consortium director, and informed the personnel manager that there was a new state program that might provide assistance and a subsidy for such training. When interviewed this personnel manager said:

> At first we thought this was too good to be true. We thought if there was help like that from the state, there must be some string attached.

A series of meetings were held between the consortium director and plant officials to identify the training needs. The

operations in this plant were so industry-specific that no school in the state had the capacity to provide training or technical assistance. It was clear that the firm would have to design and conduct the training in-house using its own instructors.

The consortium director prepared a proposal for submission to the Division of Vocational Education that included a request for $83,000 from the Department of Development for the production of training manuals and partial reimbursements for lost production of company employees used as instructors. The money would also cover the cost of producing a series of video tapes for the program. These were to be produced by a nearby state university. This project illustrates that consortium services involve not only linking firms to existing institutions that will conduct the training, but also providing resources and subsidies for in-house training.

The firm's eligibility was somewhat in question. It was not a new firm, and the expansion and new job creation had already been achieved. The subsidy was awarded on the grounds that the training would support the completed expansion and help protect the jobs created by that expansion.

Nine training modules were developed and used with the training films. Seventy workers were eventually given fifty-four hours of training, plus a copy of the particular training manual covering their job function. Cost overruns led to an additional $25,000 contribution by the firm. The wage costs to the firm for training time were $10,000, making the firm's total contribution about $25,000. The firm also retained the training manuals and films for possible use in a repeat program made necessary by turnover.

The company was immensely satisfied with the project. Actually, the only services provided were assistance in making arrangements for module and film production. The core of the project was the subsidy. Note that this differs markedly from the previous project where the subsidy was relatively inconsequential, but the access to institutional resources was extremely important.

Project C

Prior to the local consortium's existence, the Department of Development had been involved with this large manufacturing firm. The company had not been doing well financially, and its problems were compounded when a defect in its product was discovered--necessitating a massive recall and retrofit operation. The recall operation was so extensive and costly that it pushed the firm very near to bankruptcy. The Department of Development was involved with trying to assist the firm and protect

the 2,000 jobs at stake. One of the Department of Development efforts had been a grant to subsidize training for the new employees that were to be hired for the retrofit operation.

The company was in the position of needing hundreds of skilled workers in a short time period. The jobs were very product-specific, and workers capable of immediate production assignment were not available in the community. Therefore, the initial eligibility of this firm for a training subsidy was based on three factors. First, there was an expansion (the retrofit operation). Second, at least several hundred new jobs were to be created. Third, if the retrofit operation could not be accomplished with optimum efficiency, the firm would probably close and over 2,000 jobs would be lost.

When the area consortium began operations about six months later, it assumed responsibility for the project. During the following year, the Department of Development and the Division of Vocational Education allocated approximately $230,000 to the project. Two on-site training coordinators were hired and paid jointly by Department of Development and vocational education. These individuals were selected because of their backgrounds in job training and their industrial experience. They were responsible for identifying and analyzing the job functions for which training was to be done, developing training manuals for each of them, and teaching duties. The manuals were a combination of existing training materials owned by the client firm and new material developed specifically for the project. The manuals were also funded jointly by the Department of Development and the Division of Vocational Education.

The two training coordinators provided by the state were responsible for some instruction, but company staff were also used as teachers. Where company staff were used the company was reimbursed by the Division of Vocational Education at a standard contact hour rate. A suitable training site soon became a problem. The plant site was felt to be the most convenient since workers would attend training for part of their regular shifts. However, the classroom space available at the plant was inadequate. The Department of Development leased a double-wide mobile home and remodeled it as a classroom and project office. This mobile unit, carrying the stae seal, was set up in the plant's parking lot.

The client firm paid for certain equipment and machinery the state could not fund. It also donated the services of a third training coordinator from its payroll. Some equipment was also donated by the client firm to the local joint vocational school.

Employment at the plant reached a peak of 2,600 and nearly 2,000 of those were to participate in some facet of the training by the project's end. However, a reduction in product demand cut

the expansion short and eventually led to a series of layoffs. At present there are less than 1,000 employees at the plant.

This loss of jobs was not indicative of problems with the training project and it is important to note that the client firm's workforce is now better trained (although temporarily laid off). When demand for the firm's product picks up, most of these trained workers will hopefully be recalled.

CHAPTER III

VOCATIONAL EDUCATION AND ECONOMIC DEVELOPMENT IN SOUTH CAROLINA

A History

During the 1950s, leaders in South Carolina became increasingly aware that steps had to be taken to generate a broader economic base in the state than the existing mix of agriculture and textiles. Much of the state's younger and better educated population were migrating out of the state due to the lack of good paying jobs. The state was beginning to attract some manufacturing industry from the north, but the firms that did move into South Carolina had difficulty recruiting a skilled labor force. Likewise, other firms that considered establishing facilities in the state often hesitated because of their concerns about the availability of skilled labor.

The governor of South Carolina believed that the state needed to expand its technical training resources as a prerequisite to economic development and appointed a legislative committee to study the problem and make recommendations. This committee made two general recommendations:

1. To establish a "crash program" to provide immediate training for established industries and for potential in-migrating industries.

2. To establish technical training programs to train high school graduates for initial employment as technicians in industry, and to offer trade extension courses for people desiring employment in industry and those already employed who wanted to improve their skills.

In 1961, the legislature created the beginnings of what is now the State Board for Comprehensive and Technical Education (TEC). The Special Schools Program was implemented immediately to meet the first objective and to become the primary delivery system for customized training for new and expanding industry in the state. Attention was then turned to the establishment of a system of permanent postsecondary institutions. The following guidelines were to be used in implementing such a system.

1. Training programs would be based on documented job needs.

2. The area served would have a minimum annual high school graduation of 3,000 within a thirty mile radius of the center.

3. The system would consist of a minimum of thirteen centers to assure that 95 percent of the population would be within twenty-five miles of a center.

4. Sponsoring counties would provide local, suitable facilities, a share of operating costs, and local supervision.

5. The state would provide funds for staff and equipment, as well as statewide coordination and required technical support.

A strong desire to promote economic development was, therefore, the major impetus behind the establishment of the post-secondary technical education system in South Carolina. The state has since gained a reputation as a national leader in utilizing vocational education as a component of economic development strategy. When asked for reasons for the state's apparent successes, nearly every state official interviewed commented on the centrality of an economic development in TEC's mission and on the fact that TEC is not subordinate to any other state board or department.

Program Governance

The State Board for Comprehensive and Technical Education (TEC) is an autonomous entity in the South Carolina government. The board is comprised of representatives of each region in the state and the director of the state's Development Board is an ex officio member. The Special Schools Program, which will be the primary focus of the remainder of this report, is the responsibility of the Industrial Division, which is one of three divisions under TEC's Executive Director. The Special Schools Program is centralized at the state level. Special School projects may take place at any of the sixteen TEC institutions, or they may be established in temporary rented facilities. In either case, Special Schools provide training specific to the needs of a particular firm and are temporary and discontinued when the training is completed.

Each TEC institution has a local board, but they are also highly controlled at the state level. This centralization and the resulting capacity of the system to be used as an instrument of state policy was often mentioned by interviewees as another reason for the program's success. South Carolina's Special Schools are specifically funded, and decisions regarding projects can be made quickly and efficiently without coordination between multiple training systems and multiple funding sources. This streamlined decision-making process is another obvious facilitator in the South Carolina vocational education/economic development effort.

Funding

All funding for Special Schools projects is appropriated by the legislature to the TEC Board and is administered by the Industrial Division. Specifications and cost estimates for each proposed project are reviewed by the Industrial Division and a decision is then made. Several interviewees mentioned that the single funding mechanism eliminates the time lags that usually result from allocating costs among various funding sources and then making application to each of those sources.

All staff connected to a Special Schools project are funded through the Industrial Division. Instructors from the host TEC institution may be used and reimbursed, or staff from the client firm may be used and paid directly. Each TEC houses an industrial service representative who is a liaison between client firms and the state offices. These individuals report directly to the Associate Executive Director of the Industrial Division. Their role is similar to that of the consortium directors in Ohio and will be further discussed under the Outreach section later in the text.

It should be pointed out that each local TEC institution is independently involved in economic development and industrial training apart from the Special Schools Program. Each institution has a continuing education department that can establish customized training programs for local industry much like the Special Schools projects. The primary difference is funding. The sevices of the Special Schools Program are provided at no cost to client firms who are eligible by virtue of their being new to the state or by their plans for an expansion that would create jobs. In a customized continuing education program a subsidy is present, but the client firm pays the actual cost for program development and instruction to the local institution.

Linkage and Collaborative Relationships

The Special Schools Program has linkage relationships with several agencies outside the TEC system. The collaborative relationship with the State Development Board is the oldest and perhaps the most important of these. The Development Board is the primary economic development agency in the state and is responsible for South Carolina's aggressive advertising and industrial recruitment effort. Interviews with Development Board staff revealed that references to the Comprehensive Technical Education system in general, and Special Schools in particular, are always used in a presentation to a prospective in-migrating

firm. Usually TEC staff are asked to participate in these presentations, and sometimes they travel to the firm's headquarters to describe the services and benefits of a Special Schools project. The relationship between TEC and the Development Board is somewhat formalized in that the Development Board Director is an ex officio member of the TEC Board. But the relationship is further facilitated by the fact that the Associate Executive Director of TEC's Industrial Division is a former Deputy Director of the Development Board. Through such formal and informal channels, the Development Board is able to use TEC services as another "inducement" to prospective firms and simultaneously to bring special schools staff into the relationship with an in-migrating firm at an early point.

South Carolina's governor and his staff are staunch proponents of the economic development enterprise and have a close relationship with both the Development Board and TEC. The governor himself often participates in presentations to prospective client firms. The governor's awareness of TEC's role in the state's economic development efforts is, no doubt, an advantage to the TEC system when budjets are being prepared for the legislature. It was the governor's office that provided the initial impetus for the creation of TEC, and all governors since have reportedly had a strong interest in the system and its well-being.

The Special Schools Program has a long-term and fruitful relationship with the Employment Security Commission's Job Services arm. When a Special Schools project is developed for an in-migrating client firm, the goal is often to have a labor force selected and trained at the time the plant is ready to begin operations. Since the firm may not yet have managers and personnel staff in the state, recruitment of trainees is often a crucial ancillary service. TEC does not have the staff for recruitment and screening of trainees and therefore relies on the Department of Employment Services. A detailed description of how the Department of Employment Services recruits and screens for special schools is included in a later discussion on trainee recruitment. The director of TEC's Industrial Division commented that many firms are initially reluctant to allow the Department of Employment Services to handle this function because of negative experiences they have had with Employment Service agencies in other states. However, those firms that have been aided by South Carolina's Department of Employment Services have been almost unanimously pleased with the outcomes and have developed an on-going relationship with the Department of Employment Services after the Special Schools project was completed.

Each Special Schools project must also be coordinated with the TEC institution in the client firm's site area. Each school has a number of shop and classroom areas that are designed with the flexibility to accommodate a wide range of temporary Special

School training programs. These areas are equipped like a "mini" industrial site with 3 phase electricity, overhead cranes, floor-to-ceiling overhead doors, loading docks, and interchangeable benches and equipment. These shop areas may be used for continuing education programs and other purposes, but it is understood that Special School projects have priority.

If a client firm is not within easy commuting distance of a TEC college, the Special School may be operated in a temporarily rented building. The TEC college presidents, however, prefer that Special Schools be located on campus when possible. Both presidents interviewed felt that having Special Schools on campus enhanced the identity of their schools among local firms and led to an ongoing relationship between the firm and the college after the Special School project ended. Special School staff who were interviewed estimated that a majority of firms served by Special Schools eventually purchased more customized training from the local TEC colleges and/or had employees enrolled in continuing education courses.

Outreach

Expanding industries in South Carolina tend to be aware of Special Schools--because they were often served by a Special School project when they moved to South Carolina. Prospective in-migrating firms are usually referred by another development related agency such as the State Development Board, the Governor's Office, local economic development groups, and such private entities as utility companies, railroads, and banks with which the prospective firm may have had contact. As one TEC official said, "You can hardly find anyone in the development field who doesn't have a basic understanding of TEC and Special Schools." TEC's 21-year history, plus awareness of committment to the state's economic development mission across all branches of state government, ensures that technical education/economic development services are known to most potential client firms.

The Industrial Training Consultant is the initiator of Special Schools projects and the primary coordinator during their development. It is the Industrial Service Representative (ISR) that meets initially with officials of the client firm and details what TEC can do for them and how. The ISR then analyzes the firm's operation and manpower requirements. This analysis may include travel to the company's home office or to another plant to become familiar with the practices and processes the firm generally uses. The Industrial Training Consultant then prepares a complete plan for the project including recruitment, selection, and training of workers. Time schedules are prepared and the proposed project is coordinated with a training consultant assigned to the project at TEC's central office.

TEC's central office also maintains a support center that prepares training manuals for each project as well as any slides, tapes, and training films that are needed. A library of manuals and training aids used in past projects makes it possible to utilize certain components of existing curricula and training aids--thus simplifying the task of developing materials for each project.

The ISR, in the field, supports the Industrial Training Consultant at the central office in the processes of recruiting instructors, selecting trainees, determining and preparing a training site, and managing the overall conduct of the training. After training is completed, the project is followed-up for a time and the client firm is asked to provide feedback concerning the project.

Eligibility of Client Firms

Criteria for determining which firms are eligible for subsidized training are quite specific in South Carolina. New firms to the state and expanding firms where there are at least twenty new jobs being created are eligible. The only exception is an existing firm that is changing to different product line. Once they are determined eligible, client firms do not dictate the length of training programs. As one TEC official said, "Cost-effectiveness prohibits us from letting client firms decide how much training they need--our responsibility is to get the workers 'job ready'; on-going training is then the responsibility of the firm."

South Carolina policy is to provide subsidized training for manufacturing firms only. The Director of the Development Board attributed that to the "value-added aspect" of the manufacturing sector. Manufacturing is becoming a larger part of South Carolina's economy even while it is declining in its proportion of jobs provided in many other parts of the country. Some have predicted that the share of the labor force employed in manufacturing in the south will eventually decline as it has in the north.[1] If the service sectors become more significant job generators in the south as they have in the north, it may have ramifications for vocational education/economic development efforts in states like South Carolina. Officials in South Carolina say there is no plan to loosen the "manufacturing firm only" rule. However, several TEC state staff suggested that the tradition of flexibility and unflagging pursuit of economic development and job creation in South Carolina indicates that if the need for a change in that policy becomes apparent, the change will be made smoothly and efficiently.

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[1]Souder, W. "The War Between the States," TWA Ambassador, Vol. 14, No. 12, Dec. 1981, p.23.

Selection of Trainees

As mentioned previously, staff of the Special Schools Program view the cooperation of the Job Services as an important factor in their success. In the opinion of TEC staff, the South Carolina Job Services differs from employment service agencies in many other states in that its personnel are familiar with the industrial perspectives on manpower development. To a firm that is attempting to recruit a labor force, the free services of such an agency may be as significant as the actual training services themselves as one client firm included in this study claimed they were. Each of the four client firms studied in South Carolina used Job Services' help to some extent, and reported being very satisfied with the outcomes. Perhaps the proof of this lies in the fact that all four of those firms no longer process employment applications themselves. Instead they have signs posted at their plant gates referring applicants to the local Job Services office.

Even before being asked to assist a Special Schools project through recruitment and screening, Job Services is involved by providing wage and employment data by occupation in the local area. When a decision is made as to what kind of training will be done and how many trainees will be needed, TEC places ads that solicit applications in local media. The typical experience is for about 50 percent of those applying to be screened out due to prior experience, interest, length of necessary travel to the job site, or other factors. Another 25 percent is usually eliminated on the basis of tests that are given. The balance are then referred to the client firm for interviewing. Some firms choose to be involved more than others in the screening process, but all have the option to participate as fully as desired.

After the training is completed, Job Services refers any trainees not hired to other firms needing similar skills for consideration. A new program has just been implemented to refer those applicants who were screened out at the testing stage (usually due to low math and English skills) to special remedial programs so they may be considered for future special skills projects.

State Perspectives on Program Impacts

It was reported to be fairly easy for officials in South Carolina to estimate the impact of the technical education/economic development effort since new job creation is a necessary criteria for eligibility. If program impacts were assumed to be largely job retention, impacts might be more difficult to measure. South Carolina has data which indicate that 3,793

persons were trained for seventy-seven firms through special schools in fiscal 1981. The number of new manufacturing jobs created in that period can also be assumed to have been near the figure of 3,793 persons trained.

The Special Schools Program conducts periodic follow-up surveys of firms served. In the most recent survey, ninety-three firms responded. Some of the results of that survey are listed in the following:

- At least 80 percent were very satisfied with site location assistance, training facilities and equipment, the classroom component of training, and the hands-on component of training.
- Fifty-one percent felt that TEC trainees were better or much better in work attitudes than other employees.
- Forty-nine percent felt that TEC trainees were better or much better in their ability to learn compared to other employees.
- Eighty-nine percent were very satisfied with the recruitment and screening services.
- Ninety-one percent of all training completers were employed.

Client Firm Satisfaction with Service

Interviewees across the four client firms included in this study gave responses similar to those in the state's survey. All four were pleased with the outcomes of the projects, and reported that the availability of such services had enabled their plants to get started more quickly and to reach productivity goals faster. All four commented on the value of the recruitment and screening services, and one felt that those services had been more beneficial than the actual training. A plant manager said:

> This project has advanced our learning curve in two ways: first the screening, and second the training. Without those we probably would have taken much longer to get production up to spec.

Only one of the four client firms claimed that the availability of subsidized customized training was the sole reason for choosing South Carolina. The other three plant managers indicated that their companies had first decided on a southeast location for other reasons. They then set about comparing several southeast states according to many criteria, and all three said

that South Carolina's training system was a major factor in their site selection. All three also said that other southeast states had been ruled out because their training assistance programs were judged inferior.

CHAPTER IV

VOCATIONAL EDUCATION AND ECONOMIC DEVELOPMENT IN NEW YORK

History and Governance

New York's efforts to use subsidized training as an instrument of economic development policy differs from efforts in Ohio and South Carolina in that the programs in New York are newer and are still in the development stage. There are actually four separate programs in New York, and there is often collaboration between these programs on individual projects. The four programs operate under the auspices of--

- the State Education Department Program;
- the State University of New York (SUNY) Contract Course Program;
- the Commerce Department Industrial Development On-the-Job Training Program;
- Local Private Industry Councils.

For several years the State Education Department (SED) had considered implementing a customized training program. Other states had such programs, and the New York Commerce Department was of the opinion that such a program would aid in attracting new industry. The first project was conducted through the Office of Occupational and Continuing Education nearly two years ago. Several similar projects followed and over the past year a formal program evolved that now employs three full-time staff at the state level. A network of Regional Planning Coordinators was put in place, and these individuals came to be partially utilized as vocational education/economic development liaisons at the local level. Their anticipated function is similar to that of the consortium directors in Ohio and the industrial service representatives in South Carolina but with several exceptions. Most notably, the Regional Planning Coordinators in this state are expected to devote only 25 percent of their time to the vocational education/economic development function.

The State Education Development Program provides subsidies for projects that are conducted in the state's secondary vocational education institutions or community colleges, or that are coordinated by one of those schools. The program may also provide training materials, manuals, and audiovisual support.

During the current fiscal year, legislation (known as the "contract course bill") was passed creating a pool of funds to be made available to State University of New York's network of

community colleges to conduct customized training projects for certain client firms. In previous years, many of the community colleges had done customized training for firms but only on an actual cost-recovery basis. Many of the community colleges do not have a full-time coordinator or outreach person to initiate such projects since these functions are usually carried out by continuing education staff. Also, the State University of New York program cannot fund special equipment and materials for a project. For this reason, when equipment needs are essential the State University of New York-funded projects often involve cooperative agreements with one of the other programs.

The Commerce Department Industrial Development On-the-Job Training Program has been in existence for eight years but is the smallest of the four programs and differs in that only a subsidy for on-site on-the-job training programs conducted by the firm (not the development and implementation of a training program) is provided. When asked how this program fits together with the others, one state official said, "Education does formalized institutional training, then on-site on-the-job training begins." This individual later commented that "That's the way it would ideally work." In reality, the distinction is not always so clear.

Neither Ohio's or South Carolina's programs make extensive use of Private Industry Councils. In fact, in some areas there appeared to be a sense of competition or "turfism." However, in New York, Private Industry Councils are widely claimed to be major partners in many vocational education/economic development projects, and have been responsible for the initiation of many of these projects. In a large project reviewed during this study, the Private Industry Council was involved mainly as a coordinating body as a funding source. The Private Industry Council director said that the Private Industry Council funds were "flexible" in how they could be used in such a project, and were therefore essential to cover costs that other involved programs were unable to cover.

These four programs operate independently, although tradition has been that they coordinate. Collaboration is informal, and because of the lack of specific coordination mechanisms, is arranged on a project-by-project basis. Several persons interviewed said that the process is at times confusing, and necessitates "reinventing the wheel" for each project. However, others felt that the informal linkage arrangements between projects worked well.

Many of the interviewees felt that changes in the state's approach to vocational education/economic development would come soon. The State Education Department has a bill in the legislature asking for $10 million to expand that program. It was also reported that part of the New York Department of Labor's budget

would be used for human resource-related economic development projects. Some persons also anticipated that if federal block grants replace CETA, the Private Industry Councils will largely administer those funds and make more resources available for training/economic development projects. Most officials interviewed felt that there would soon be some state-level coordination between these fragmented approaches, and much speculation exists about which state agency will be called upon to be the primary authority for economic development-oriented training.

Funding

The State Education Department program is funded this year with $1.175 million earmarked from Vocational Education Act (VEA) monies. There is currently a bill in the legislature which would provide $10 million next year for the program. All interviewees familiar with the bill felt that the $10 million would be reduced at least to $5 million if the bill passed at all.

The State Education Department program funds individual projects upon reviewing proposals submitted by a Regional Planning Coordinator. A Regional Planning Coordinator is expected to be familiar with the criteria under which the State Education Department economic development funds can be used. The Coordinator often prepares the project proposal with the assistance of an Adult Education Coordinator or other staff person from the local secondary vocational education system. The proposals must address the background on the project, the impact on employment, the training needs, and a description of the employees to be trained. Objectives and linkage arrangements with other agencies and requested funding levels are also outlined. If the proposal is approved, funds are appropriated through the Board of Cooperative Education Services (which is the local vocational education agency), or a local community college.

The State University of New York program is funded at approximately $1.3 million. In actuality, 1,394 full-time equivalents have been set aside for use by community colleges for contract courses. Funding to the colleges is only in terms of full-time eqivalents, and no materials or equipment are funded. There is no ceiling on funding for individual projects. Proposals are submitted by any community college and include a program justification and identification of the client firm's eligibility, cost projections, nature of the client firm, and descriptions of the training to be delivered. There is a policy that such proposals will be acted upon in thirty days or less. Approval is needed from only one individual at the state level. That person said that turn-around time is usually much less than thirty days.

The Commerce Department Industrial Development on-the-job training projects carry a ceiling of $25,000 per project. The client firm is reimbursed for a maximum of 50 percent of the actual training cost. If a third party training contractor is involved arrangements are made by the client firm and all payments are to the client firm. This program's budget was recently cut from $1 million to $.5 million per year.

Linkage and Collaborative Relationships

In New York, there is no single authority responsible for vocational education/economic development efforts as there is in South Carolina. There is also no formal entity at the local level to coordinate projects or broker funds from several sources such as exists in Ohio. Each of the four programs in New York may solicit potential client firms, arrange projects, and provide funding separately. However, some projects are too large or too diverse for any one of the programs to accommodate it alone. Most of the large projects in New York were initiated by one of the programs, and were developed in such a way that one or more of the other programs were called upon to provide some component of the overall service package.

The linkage arrangements between the four programs are informal, and most persons interviewed about specific projects felt they were driven by personal relationships at the local level rather than by bureaucratic arrangements at the state level. In a given project, the training institutions most often involved are the State University of New York, community colleges, and the Boards of Cooperative Educational Services (BOCES) --each operating under different programs. No interviewees reported significant problems in determining which institutions should handle which facets of training. A State Education Department official said that the division of responsibility within projects usually works itself out logically according to the skill levels involved. Generally, community colleges handle the most technical aspects of the training as well as those that are management related. The BOCES then provide for the mid-level skills training, while the Private Industry Councils arrange for short-term training for the lowest skill levels involved.

While that process may not have created significant problems as yet (according to those interviewed), coordination between several programs (each with its own field liaison, eligibility requirements, funding regulations, and proposal processes) does create time lags. When a large project is divided between several entities, time frames for paperwork and approvals vary--and synchronization is at best less smooth than where a single agency would have sole responsibility.

Outreach

The job description of the Regional Planning Coordinators allocates 25 percent of their time to "active participation in regional economic development." The Regional Planning Coordinators visit local businesses and industries to make them aware of training assistance possibilities under the State Education Education Department, and to monitor their employment projections. The planning coordinators also receive referrals on potential client firms from the Commerce Department. The planning coordinators often make referrals to a community college or the Private Industry Council if it appears that the BOCES is not the best-suited agency to handle the entire project. The Regional Planning Coordinators (and to some extent, the continuing education staff of the community colleges) are the only staff from the three state agencies that do outreach for vocational education/ economic development programs as a formal job function.

Interviewees from the State University of New York's Central Office and a local community college all said the State University of New York program "functions well with continuing education staff performing the outreach function." The community colleges have provided specialized training programs to business and industries prior to the availability of the State of New York subsidy. Continuing Education directors and their staffs brokered and coordinated those projects. However, demand for the subsidized projects is getting higher, and in some areas may eventually require a full-time staff position for the function.

The four agencies reportedly communicate a great deal about prospective client firms--a process that aids the outreach effort. When a company calls a community college to inquire about training services, that firm gains access not only to the State University of New York program but also to the State Education Department program and the Private Industry Council where appropriate. Likewise, Private Industry Councils were established to provide a link between CETA and the private sector's training and employment needs. In their network of communications with firms, Private Industry directors in New York attempt to provide information about all the state's programs of customized training.

With respect to outreach and awareness of the programs in the business community, New York is similar to Ohio. Both are relatively new efforts and are in the process of becoming more well-known to chambers of commerce and other "lead economic development agencies" that tend to be aware of business migrations and expansions before the educational community. In both New York and Ohio, many of the projects are for upgrading current employees.

Early identification of a client firm's personnel plans may not be as important for job retention projects as it is for those

projects involving a new plant start-up or an expansion where new skilled workers are needed at a specific point in time to prevent production delays. States like South Carolina (where all or most projects are for new job creation) have a more critical need for outreach to establish a coordinated lead time schedule for labor force development and efficient production schedules. South Carolina has addressed that need by utilizing an extensive network of referral sources that includes other state agencies and local economic development actors. That network evolved and developed over a period of years.

Eligibility of Client Firms

The State Education Department program's present policy toward client firm eligibility for subsidized training is that proposals must address one of the following goals:

1. skill-training programs for companies that want to locate in New York state;

2. skill-training programs for New York state companies that want to expand their current operations;

3. retraining and upgrading for companies and industries to keep pace with technological and other changes in the labor market.

Under legislation which the State Education Department has proposed, any of the following project types would be eligible for subsidies:

1. skill-training for companies that want to locate or expand in New York state;

2. retraining and upgrading to improve technology, quality control, production, efficiency, and to adapt to other changes in the labor market;

3. training and management training support to the entrepreneur, small business, and cottage industry;

4. special training programs and educational assistance for new and expanding industries in urban and rural areas with high concentrations of poor, minorities, and unemployed;

5. unique training programs to meet the emerging needs and occupations of New York state's business and industry;

6. basic skills, including remediation, where these skills relate directly to short-term training needs of business and industry.

The State University of New York program criteria simply states that it will provide "occupational training or assistance to business for the creation, improvement, and retention of job opportunities." This is much like the eligibility criteria for the Ohio program where job creation is mentioned first, but job orientation is included and left undefined. In proposing a project a community college must describe its intended job impact. This requirement is often met by a statement that the proposed project will help operations at the client firm's plant be more successful: a process that will lead to job creation or at least retention of current jobs.

Eligibility for the Commerce Department Industrial Development on-the-job-training is relatively simple. It is only for new or expanding firms where new job creation will take place. Additionally, the client firm must contribute funds that are at least equal to the state subsidy for the project.

None of the project's eligibility criteria specifically rule out small businesses, although several interviewees said it would not be cost-effective to operate a project for a very small firm. A labor department official did point out, however, that small businesses are really where the need is greatest since they seldom have access to the technical assistance that large firms have. How to serve small companies efficiently is even more significant when considering that most new jobs are created by small businesses. Perhaps an especially streamlined mechanism for serving small businesses with relatively low cost projects should be considered.

Selection of Trainees

With the partial exception of Private Industry Councils, none of the programs described in New York provided trainee screening and selection as one of their major services to firms. A number of the projects in New York have been for upgrading current employees where no new hiring was done. A State Education Department official said that if a client firm requested help with screening and selection, arrangements would be made for those services to be provided by Employment Services under the New York Department of Labor. Officials in New York, however, should perhaps consider the feedback from client firms in South Carolina, which suggests that where new hiring is taking place, assistance with screening and selection can be as valuable to the firm as the training itself.

State Perspectives on Program Impacts

Both the State Education Department and the State University of New York programs are now following-up on projects and tabulating numbers of persons trained, costs, and so on. However, none of the techniques used claims to measure net job impact of the project. As stated previously, such a measurement would be difficult if not impossible. The only state efforts to evaluate vocational education/economic development efforts uncovered in this study counted outputs (i.e. trainees trained or firms served) rather than attempting to determine program impacts in a larger public policy (e.g., cost-benefit) framework.

As of March 1982, the State Education Department program had trained approximately 4,300 persons in forty-four projects. This has been at a total cost of just under $1 million, or an average per trainee cost of slightly over $200. The State University of New York program was been involved in about eighty projects during that period.

Client Firm Satisfaction

In each of the three states, the projects to be reviewed for this study were chosen by the liaison persons. In New York, two projects were selected for site-visits and interviews with staff. One of the projects reviewed was one of New York's largest, and was being conducted with a large manufacturing firm in the western part of the state. This firm had been a major employer in the local area but in recent years had experienced layoffs. The plant began retooling for a new product line in mid-1981, a year ago and both officials of the firm and knowledgeable persons in the community felt that the success of the new product line would determine the success of the plant and the security of the several thousand jobs it would provide.

The firm initially called the local Private Industry Council to investigate the possibility of CETA funds being used for part of the extensive retraining that would precede the new product line. The Private Industry Council eventually made a major contribution to the project, and also brought the local BOCES and an area community college into the project. The training is still underway with the community college doing most of the technical training and the BOCES contributing basic skills and introductory training. The community college involvement was funded by the State University of New York program, while the services provided by the Bureau of Occupational and Continuing Education were funded by the State Education program. The Private Industry Council provided much coordination as well as funding for special items that neither the State Education Department nor State University of New York programs could provide. The project is designed to eventually train 1,400 workers.

Officials at the client firm felt that the project benefited them mainly by "providing better quality instructors than are available internally" and by having teachers that the hourly-staff could relate to. Here it seemed that one problem with in-house training was that teachers were viewed as management, and the resulting distrust by union workers diminished the quality of the learning environment. It was reported that in the absence of the subsidized project, the training still would have been done in-house but probably on a smaller scale and probably at a lower quality level.

Overall, the client firm was very satisfied with the services provided and one official said he was "very impressed with these schools and their staffs--I don't think we truly appreciated them until now." It was also clear that the training being done at no cost was a major source of satisfaction as well. A personnel manager said that the corporate training unit could have come in and done the training, but it would have involved heavy intracorporate money transfers that would have made the plant appear less cost efficient in the corporate eye.

It is too soon to speculate what impact this project may have had on local employment, but it is clear that the expansion (new product line) was not influenced by the project and that some level of training would have occurred in any case. The project's potential impact lies in facilitating the starting efficiency and continued productivity of the new product line--an impact that is not apt to be measured empirically.

CHAPTER V

CONCLUSIONS

This chapter highlights selected comparisons across the three states studied. It also discusses, in brief, a number of generic recommendations for states that are implementing programs for providing customized training to certain firms as an instrument of economic development, and states considering policy options for the continuing development of such programs. Since programs and arrangements vary widely from state to state, some of these recommendations are not specific. Instead they are an effort to point out factors that appear to be significant to program effectiveness in the three states. The chapter will also discuss several macro policy issues that should be considered by states in order to determine specific policies and delivery system for vocational education/economic development efforts. Finally, this chapter will suggest several possible goals for future research.

Selected Comparisons and Findings

- The program in South Carolina is highly centralized and autonomous; whereas programs in Ohio and New York are products of joint responsibility and involve numerous informal arrangements.

- The South Carolina program is funded through a single legislative appropriation, and funding decisions require the approval of a small number of persons. In New York and Ohio, projects often require decisions from multiple funding sources.

- The South Carolina program provides subsidies only to new and expanding firms where there is new job creation. Programs in Ohio and New York have less stringent eligibility requirements and do not require new job creation.

- The subsidy distinctions in the South Carolina program are partly attributable to South Carolina's relatively early committment to industrial development and to the fact that South Carolina's postsecondary vocational-technical education system was established with a strong economic development mandate. Programs in New York and Ohio are more recently developed and exist as "add-ons" to existing agencies.

- In all three states, client firms were highly satisfied with the service they received.

- Most client firms reported that they would have conducted a training program in the absence of state services; however, they reported advantages from using state services.

- For in-migrating firms, the availability of subsidized vocational education training projects were reported to have been a factor, but seldom the decisive factor, in location decisions.

- For expanding firms, subsidized vocational education projects were reported to have facilitated expansions and enhanced productivity, but not to have determined expansion decisions.

General Recommendations

- States should attempt to provide for a single agency to have authority for providing customized vocational education services to augment the state's economic development effort. A single agency potentially reduces problems in coordination and reduces the number of decision points required for projects. Faster response time may result.

- Funding for vocational education/economic development projects should be allocated directly to the single agency responsible. Many of the time delays reported by interviewees resulted from project developers having to apply to third-party agencies as funding sources.

- Governor's offices and state legislatures should express a committment to utilizing the state's vocational education resources as partners in the economic development enterprise, and should provide decision-making authority and funding to such programs accordingly.

- Decision-making processes regarding project eligibility and funding should be as streamlined as possible. Governors and legislators should also be made aware of the importance of streamlined decision-making when considering alternative governance and funding arrangements.

- Facilities and equipment should be at the ready disposal of program officials and should be up-to-date and designed to accommodate a variety of training

projects. Arrangements should exist for transporting equipment to remote parts of the state when necessary.

- If eligibility for subsidies is to be extended to projects where new jobs are not to be created, then eligibility criteria that will allow states to demonstrate the cost-effectiveness of those public investments should be developed. For example, if eligibility for a project is to be based upon productivity enhancement, the initial project design should incorporate a plan for demonstrating the productivity gains that result.

- Screening and selection services are potentially of great value to certain client firms and are relatively low in cost to the states. Mechanisms should be developed for bringing such services into vocational education/economic development projects.

- Accounting systems must be in place to accommodate complex and unique multiple-party contracts. Some institutions do not typically use such fiscal arrangements, and may need to establish special business office procedures.

- The agency responsible for vocational education/economic development projects should be closely coupled to the state's primary economic and industrial development agency. This is important not only for referrals, but also to legitimize the vocational education/economic development program in the eyes of business and industry.

- Programs should have a network of field liaisons or project coordinators who would ideally have expertise in occupational education, job analysis, general personnel practices, and at least the rudiments of industrial design and operations.

- Since individuals meeting such an expertise description may not be easily obtainable, states should offer some mode of inservice training to these individuals. For example, those with extensive backgrounds primarily in education may benefit from workshops and seminars in industrial development and private sector management, while those with industrial backgrounds may require some orientation to their area's educational resources.

- States should maintain a library of training manuals, video tapes, slides, and other materials developed for customized projects. This library should be organized by industry, occupation, and tasks so that future customized curricula development can utilize the earlier efforts.

Macro Policy Issues

This study has illuminated several policy issues that were beyond its scope to resolve. However, these issues are potentially important to states that are developing vocational education/economic development programs, and should be considered in the context of each state's special circumstances and development goals. These issues were identified in part from the literature, in part from the comments of those interviewed, and in part from the author's own perceptions.

Public Versus Private Responsibility for Training

Traditionally public training has been perceived as both a service to individuals and a public investment in the human capital of individuals. Training conducted by private firms at their own expense has generally been viewed as a business investment in the firm's labor force, with the goal of increasing profits. Vocational education/economic development projects appear to sometimes blur that distinction. States must decide how far they are willing to go in assuming responsibility and costs for firm-specific private training. The money invested nationally by firms for training and development is several times greater than what is spent on all public training programs combined. It is obvious that the public cannot fund all private training.

Client Firm Eligibility and Subsidies

The decision to spend public revenues for firm-specific private training should be based upon the expectation of a public return on the investment. Where new job creation ensues, a logical case can be made that those new jobs accelerate local economies and generate new revenues. Where there is no new job creation, the presumed return on an investment is jobs retained. Public investments to aid ailing firms and thereby save jobs have a different rationale and therefore should have different eligibility criteria than job creation projects. Vocational education agencies should perhaps not be expected to make decisions regarding public subsidies to ailing firms. If, however, subsidies are not provided, public resources for providing customized training should still be accessible to the private sector. Vocational education/economic development programs can divorce the issues of eligibility for subsidies from eligibility for services and continue to provide customized training to any business or industry at actual cost.

National Versus Local Interests

When state economic development efforts succeed in attracting new business and industry and creating new jobs, the "job creation" is often job migration. Competition between states to be sites for new plants or businesses does not effect national net employment unless foreign firms are attracted or U.S. firms are persuaded not to leave the country. From a national perspective, job creation may be a zero-sum game: what one state gains, another loses.

Capacity and Infrastructure Building

Placing the issues of job creation, productivity, and expansion of tax bases aside, there are still other reasons why vocational education economic development projects are worthwhile endeavors. Anthony Carnevale (and others) have elaborated on the need for subnational economic development and the need for increased cooperation between business, industry, government, and labor. The relationship between public education and private training should be strong. Linkage between public education and the private sector, a process motivated by economic development goals. Vocational education/economic development customized training projects are clear examples of how such close cooperation can work. The development of productive work forces is both a private and a public concern.

In regards to vocational education/economic development efforts Carnevale says,

> The Federal Government has much to learn from these efforts in its own attempt at national policies. At a minimum, federal policies should not set asunder what local self-interest has joined--the federal government should attempt policies and programs that allow these nascent systems a perspective beyond the interarea competition that gave rise to them.[1]

In other words, competition between states for new business and industry gave rise to vocational education/economic development programs; but their value from a national perspective may lie more in the fact that they constitute a sort of prototype of industry/education coorperation. If one assumes that the U.S.

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[1]Carnavale, Anthony P., The Real Supply-Side Economics, Occasional Paper No. 80, The National Center for Research in Vocational Education, The Ohio State University, January 1982, p.10

economy will eventually move again into a "boom" cycle, that era may well require a level of cooperation among public training agencies and private firms that does not exist anywhere as yet. Vocational education/economic development programs may be at the vanguard of vocational education policy in that respect. If carefully thought out and developed, they may provide the capacity and infrastructure needed for a new coordination between the supply and demand sides of labor markets. It is important to note here that the linkage and capacity building benefits of vocational education/economic development projects are not necessarily dependent upon any public subsidies that may be involved.

Future Research

There are still a great many questions to be answered concerning the utility of customized training projects for new and expanding industry. Included here are brief descriptions of three possible studies having potential for significant contributions to the existing body of knowledge.

- The impact of vocational education/economic development projects upon the trainees involved is a subject about which little is known. A longitudinal study of trainees would indicate benefits to trainees as opposed to benefits to client firms.

- The survey of client firm satisfaction in this study included sixteen firms. A more in-depth survey of client firms across many states would potentially identify more ways in which the policies and practices of vocational education/economic development programs could be improved. It might also provide new data on the extent to which such projects affect location and expansion decisions. Individual state programs might also benefit from conducting their own studies of previous client firms.

- This study has provided descriptions of structure and governance of programs in three staes. However, an expanded project designed to describe programs in all states where vocational education/economic development are underway would produce a document comparing and contrasting efforts across various states and regions. The need for such a document was mentioned by several of the reviewers of this report.